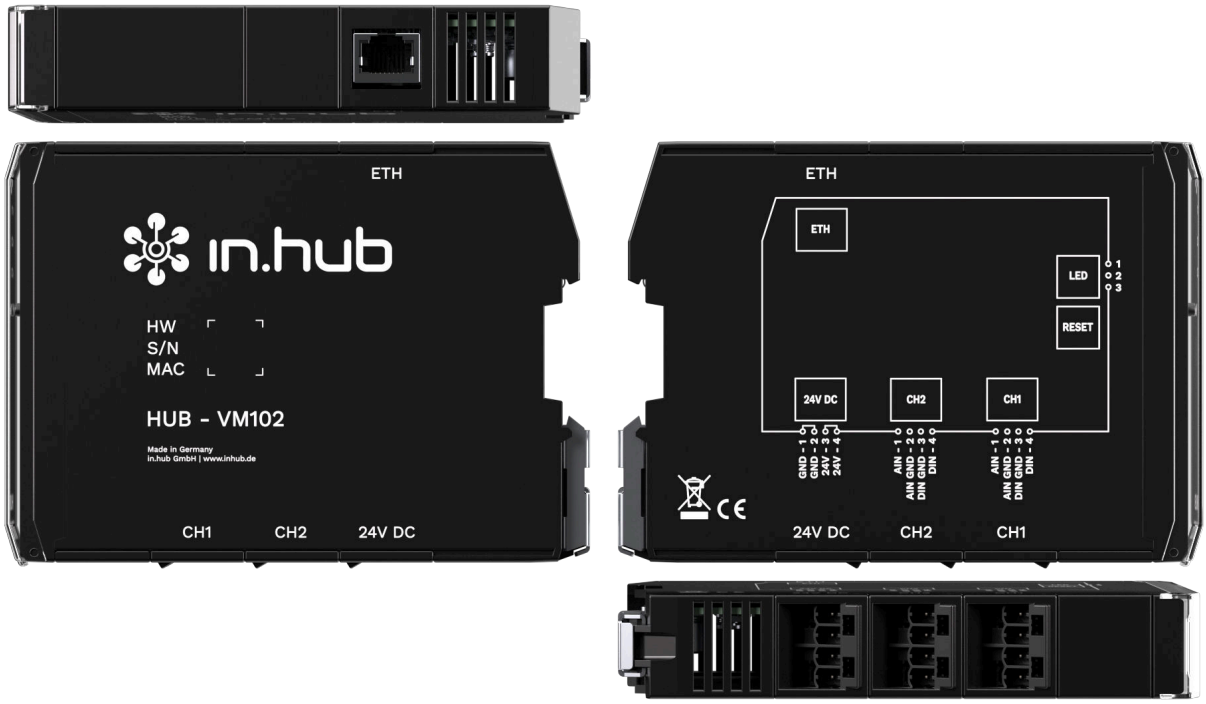
HUB-VM102

Technical data sheet

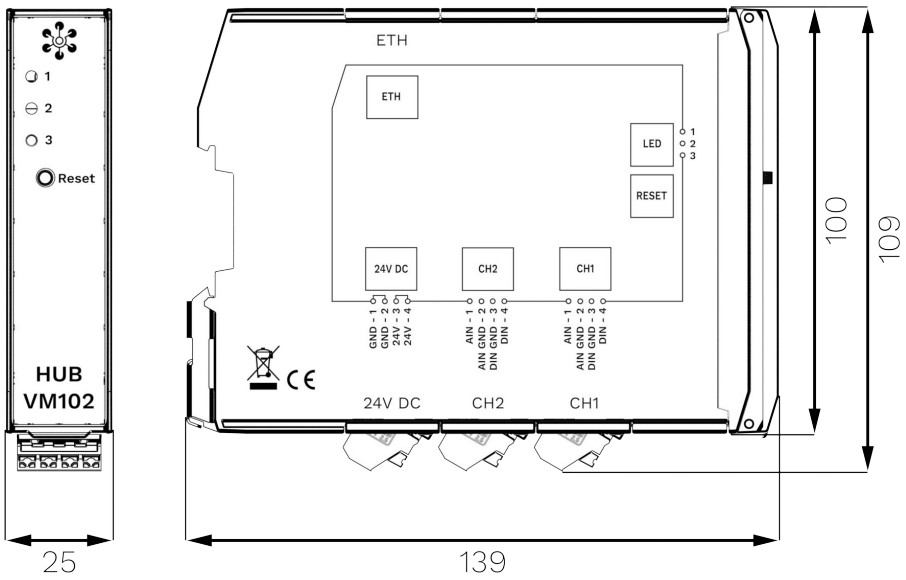
Document version 1.0 | Released on:
17. February 2025

Views of the HUB-VM102

Device views



Schematic diagram



Dimensions of the HUB-VM102 in mm

Technical data

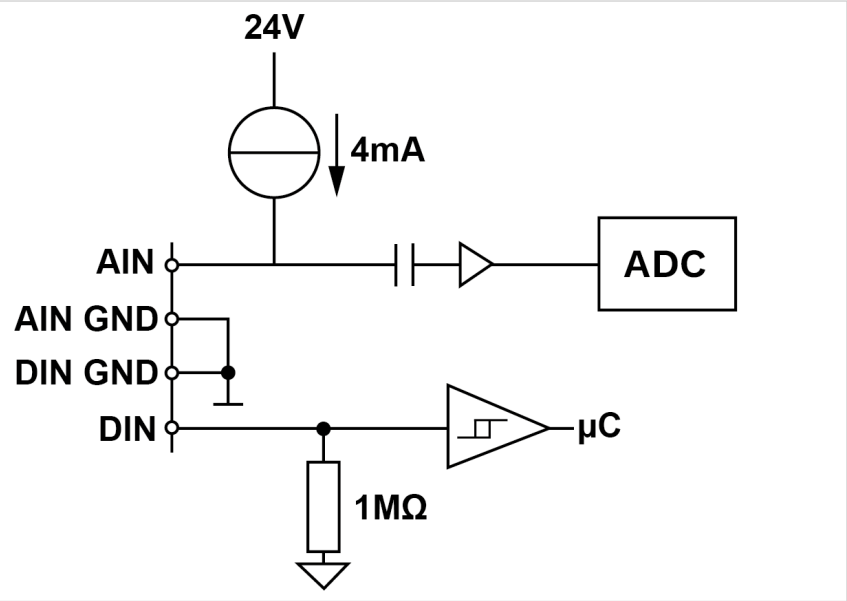
Data	Values
Power supply	24 V DC ± 10 %
Current consumption	~130 mA
Microcontroller	166 MHz, 32 Bit ARM Cortex M7
Storage	16 MB
Data interfaces	Ethernet: 100 Mbit/s 3× status LEDs Backplane bus
Connections for peripheral devices	2× analogue input for IEPE vibration and acoustic sensors 2× digital input (30 V and 10 kHz)
Protocols	MQTT client Modbus TCP/IP server
Housing	Plastic (polyamide), black, flammability class UL 94 V0
Protection class	IP20
Dimensions	139 mm × 100 mm × 25 mm
Weight	142 g

Ambient conditions	Values
Temperature range	Storage: –40°C to 85°C Operation: 0°C to 50°C
Humidity	Storage: 10% to 95% RH, non-condensing Operation: 20% to 90% RH, non-condensing
Operating altitude	Max. 2,000 m above sea level

Specification of the CH1 and CH2 interface

Digital input DIN	Values
Switching threshold	between 1 V and 2.5 V | 0.5 V hysteresis
Input resistance	1 MΩ, max. 30 V
Bandwidth	10 kHz
Permissible input voltage range	–3 to 30 V

Analogue input AIN	Values
Function	Connection for IEPE-compliant sensors for vibration monitoring
Connection	One IEPE sensor per channel; data can be recorded synchronously
Power supply for IEPE sensors	~4 mA and monitoring of the IEPE voltage
Maximum AC input level	6 V_{eff}
IEPE channel bandwidth	0.5–10,000 Hz
ADC sampling frequency	48,000 kHz
ADC resolution	24 bit



Circuit diagram of the CH interface (CH1 and CH2 are identical)

Backplane bus specification

Backplane bus	Values
Voltage on the backplane bus of the master gateway	Voltage of the power supply unit minus 0.5 V
Communication	Via Modbus RTU
Max. number of modules on one master gateway	3

This document is provided in electronic form in the download portal of in.hub. Printed versions or copies not explicitly provided by in.hub are considered uncontrolled.

The original language of this document is German.

Made in Germany.

Service & Support: service@inhub.de | https://community.inhub.de/

in.hub Download portal: https://download.inhub.de/

in.hub GmbH
Technologie-Campus 1
DE-09126 Chemnitz

+49 371 335 655 00
info@inhub.de